Amendments to the Claims

1. (Currently Amended) A method for increasing the flexibility of the ocular ~~crystalline~~ lens of the eye, comprising the steps of:

a) selecting a location within the ocular lens of an eye;

b) creating a microsphere at the selected location, wherein said microsphere comprises a gas-filled bubble of generally spherical shape; and

c) repeating the steps of selecting and creating at a plurality of locations within the ocular lens so as to increase~~; and increasing~~ the flexibility of the lens ~~through the step of repeating~~

wherein the microsphere created in one step of creating remains separate from any other microsphere created during another step of creating.

2. (Original) The method of claim 1 wherein said increase in flexibility corrects an optical anomaly of the eye.

3. (Original) The method of claim 2 wherein said optical anomaly comprises a refractive error.

4. (Previously Presented) The method of claim 3 wherein said refractive error is myopia, hyperopia, presbyopia, regular astigmatism, irregular astigmatism, or aberrations.

5. (Currently Amended) The method for increasing flexibility as set forth in claim 4, wherein the step of repeating generates at least one change in the ocular lens resulting in at least one effect selected from the group consisting of: creation of independent microspheres, creation of microchannels, alteration of lens surface curvature, increased lens flexibility, increased accommodation, reduced light scatter, reduced rate of increase in light scatter, and ~~or~~ reduced rate of loss of accommodation.

6. (Original) The method of claim 1 wherein said increase in flexibility increases accommodation of the lens.

7. (Original) The method as set forth in claim 1 further including the step of:

allowing said microspheres to collapse while maintaining said increase in flexibility.

8. (Original) The method as set forth in claim 7 wherein said collapse decreases the anterior to posterior thickness of the lens.

9. (Original) The method as set forth in claim 1 wherein the increase in flexibility creates no significant change in the anterior to posterior thickness of the lens.

10. (Cancelled)

11. (Currently Amended) The method of claim 1 ~~10~~ wherein said microspheres are created with a separation in the range of about 2 μm to about 20 μm.

12 - 13. (Cancelled)

14. (Currently Amended) The method as set forth in claim 1, wherein the step of repeating generates at least one change in the ocular lens resulting in at least one effect selected from a group consisting of ~~including~~: creation of independent microspheres, creation of microchannels, alteration of lens surface curvature, increased lens flexibility, increased accommodation, reduced light scatter, reduced rate of increase in light scatter, and reduced rate of loss of accommodation.

15. (Original) The method as set forth in claim 1, further comprising the step of:

presenting antioxidants to the eye.

16. (Original) The method as set forth in claim 15 wherein said antioxidants mediate changes to the ocular lens or other ocular structures and contents.

17. (Original) The method as set forth in claim 1, further comprising the step of altering a lens capsule of the ocular lens.

18. (Original) The method as set forth in claim 17, whereby the surface area of the lens capsule is reduced by thermoplasty.

19. (Original) The method for increasing flexibility as set forth in claim 1, wherein the step of selecting primarily includes selecting locations within the adult and juvenile nuclei.

20. (Currently Amended) A method for increasing the flexibility of the ocular lens of the eye, comprising the steps of:

a) selecting a location within the ocular lens of an eye;

b) creating a microsphere at the selected location, wherein said microsphere comprises a gas-filled bubble of generally spherical shape; and

c) repeating the steps of selecting and creating at a plurality of locations within the ocular lens so as to increase the flexibility of the lens;

~~The method as set forth in claim 1,~~ wherein the step of repeating generates microspheres in greater densities in a first region of the ocular lens as compared with a second region of the ocular lens so as to produce a differential flexural change between the first and second regions of the ocular lens.

21. (Original) The method as set forth in claim 20, wherein the differential flexural change produced creates an ocular lens having a more flexible equatorial region.

22. (Original) The method as set forth in claim 20, wherein the differential flexural change produced creates an ocular lens having a more flexible region near the visual axis.

23. – 28. (Cancelled).

29. (Currently Amended) A method for increasing fluid transport within a region of the ocular lens, comprising the steps of:

a) selecting a location within the ocular lens of an eye;

b) creating a microsphere at the selected location, wherein said microsphere comprises a gas-filled bubble of generally spherical shape; and

c) repeating the steps of selecting and creating at a plurality of locations within the ocular lens; so as to increase ~~and increasing~~ fluid transport within the lens ~~through the step of repeating~~.

30. (Original) The method as set forth in claim 29, wherein the increase in fluid transport retards cataract development.

31. (Currently Amended) The method as set forth in claim 29, wherein the step of repeating generates at least one change in the ocular lens resulting in at least one effect selected from the group consisting of ~~including~~: creation of independent microspheres, creation of microchannels, alteration of lens surface curvature, increased lens flexibility, increased accommodation, reduced light scatter, reduced rate of increase in light scatter, and reduced rate of loss of accommodation.

32. (Original) The method as set forth in claim 29, further comprising the step of:

presenting antioxidants to the eye.

33. (Original) The method of claim 32, wherein said antioxidants mediate changes to the ocular lens or other ocular structures and contents.

34. (Currently Amended) The method as set forth in claim 29, wherein the step of repeating generates at least one microchannel ~~that traverses a path running generally in the direction from posterior to anterior within the ocular lens~~.

35. (Currently Amended) A method for correcting an astigmatism of an eye, comprising the steps of:

selecting a location on an ocular ~~a~~ lens of the eye; and

altering the ocular lens by applying a plurality of joined microspheres adjacent to each other at the selected location on the ocular lens with a laser;

whereby the alteration of the ocular lens reduces lens volume by cavitation, altering the surface shape of the lens.

36. (Currently Amended) The method for correcting astigmatism as set forth in claim 35 further comprising the steps of:

producing a cavity in the ocular lens; and

allowing the lens capsule and certain lens cortex tissue to collapse essentially eliminating the cavity;

whereby the ocular lens surface topography is changed by said lens capsule collapse.

37. (New) A method for altering curvature of a lens while preserving the optical center of the lens, the method comprising:

selecting locations within an ocular lens of an eye, the ocular lens including an optical center; and

directing a laser beam to the selected locations, the laser beam having sufficient energy density to cause photodisruption;

wherein the selected locations are all spaced from the optical center; and

whereby no photodisruption occurs at the optical center.

38. (New) The method of claim 37

wherein a majority of said selected locations are located closer to said optical center than to an equator of the lens; and

wherein said convex curvature of said lens decreases as a result of said method.

39. (New) The method of claim 37

wherein a majority of said selected locations are located closer to an equator of the lens than to said optical center; and

wherein said convex curvature of said lens increases as a result of said method.